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Claims

1. A method for performing cell load control in a mobile radio network using diversity connections between base stations, comprising the steps of:

5 a) transmitting a load information of a radio cell from a first radio network controller serving said radio cell to a second radio network controller not serving said radio cell; and

10 b) using said load information in said second radio network controller for deciding on a load status of said radio cell.

15 2. A method according to claim 1, wherein said load status is used for deciding on an admission of said radio cell for handover of a mobile terminal controlled by the second radio network controller.

20 3. A method according to claim 2, wherein said load information is transmitted in response to a load request issued by said second radio network controller.

25 4. A method according to any one of claims 1 to 3, wherein said load information is transmitted, when a load level of said radio cell has reached a predetermined load threshold.

30 5. A method according to claim 4, wherein said second radio network controller commands a controlled mobile terminal to replace or delete a branch to said second cell, in response to said load information.

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6. A method according to claim 3, wherein said load request is issued on the basis of a measurement of a neighbor cell supported by said mobile terminal.

5 7. A method according to claim 3 or 6, wherein said load request is issued, when said radio cell is included in an active set or a candidate set of said mobile terminal, said active set or candidate set being used for determining radio cells for the handover of said mobile terminal.

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8. A method according to claim 7, wherein said load request is issued, when said mobile terminal has transmitted a request to said second radio network controller to add said radio cell to said active set.

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9. A method according to claim 7 or 8, wherein said admission decision is directed to an admission or deletion of said radio cell in the active set of said mobile terminal.

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10. A method according to claim 3, wherein a periodical load information is transmitted in response to said load request.

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11. A method according to any one of the preceding claims, wherein said radio cell is located adjacent to an area served by said second network controller.

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12. A method according to any one of the preceding claims, wherein said load information includes a transmission power level and a received interference level of said radio cell.

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13. A method according to any one of the preceding claims, wherein said mobile radio network is a radio access network of the UMTS.

5 14. A method according to claim 1, wherein said load status is used for deciding on an amount of capacity which can be allocated to a user.

10 15. A method according to claim 1, wherein said load status is used for deciding when to order a mobile terminal to switch to a dedicated channel state.

15 16. A method according to claim 15, wherein said mobile terminal is ordered to switch to said dedicated channel, when said load status indicates an overload of a common channel.

20 17. A system for performing cell load control in a mobile radio network using diversity connections between base stations (2-1, 2-2), comprising:

a) a first radio network controller (3-1) comprising transmitting means (10) arranged for transmitting a load information of a radio cell (13) served by said first radio network controller (3-1) to a second radio network controller (3-2) not serving said radio cell (13); and
b) said second radio network controller (3-2) comprising a receiving means (20) arranged for receiving said load information, and a decision means (21) arranged for deciding on a load status of said radio cell (13).

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18. A system according to claim 17, wherein said load status is used for deciding on an admission of said radio

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cell (13) for a handover of a mobile terminal (1) controlled by said second radio network controller (3-2).

19. A system according to claim 17 or 18, wherein said

5 first radio network controller (3-1) comprises a determination means (11) for determining a load level of said radio cell (13) and for generating said load information.

20. A system according to claim 19, wherein said determina-

10 tion means (11) controls said transmitting means (10) so as to transmit said load information, when the load level of said radio cell (13) has reached a predetermined load threshold.

15 21. A system according to claim 19 or 20, wherein said first radio network controller (3-1) comprises a receiving means (10) for receiving a load request transmitted by a transmitting means (20) of said second radio network controller (3-2), wherein said determination means (11) is ar-
20 ranged to control said transmitting means (10) of said first radio network controller (3-1) to transmit said load information when said load request has been received by said receiving means (10).

25 22. A system according to claim 21, wherein said determina-
tion means (11) is arranged to periodically determine said load information and to control said transmitting means (10) of said first radio network controller (3-1) to periodically transmit said load information.

30 23. A system according to any one of claims 19 to 22,
wherein said determination means (11) is arranged to deter-

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mine said load information on the basis of a load parameter received by said first radio network controller (3-1) from a base station (2-1) of said radio cell (13).

5 24. A system according to any one of claims 17 to 23, wherein said mobile radio network is a radio access network of the UMTS.

10 25. A system according to claim 17, wherein said load status is used for deciding on an amount of capacity which can be allocated to a user.

15 26. A system according to claim 17, wherein said load status is used for deciding when to order a mobile terminal controlled by said second radio network controller (3-2) to switch to a dedicated channel state.

20 27. A system according to claim 26, wherein said mobile terminal is ordered to switch to said dedicated channel, when said load status indicates an overload of a common channel.

25 28. A radio network controller used as said first (3-1) or second (3-2) radio network controller in a system according to any one of claims 17 to 27.